Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Office of Secretary Of Defense

R-1 ITEM NOMENCLATURE

0400: Research, Development, Test & Evaluation, Defense-Wide

PE 0605130D8Z: Foreign Comparative Testing

BA 6: RDT&E Management Support

APPROPRIATION/BUDGET ACTIVITY

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	26.642	18.674	18.174	-	18.174	18.751	28.954	30.785	31.353	Continuing	Continuing
P130: <i>FCT</i>	26.642	18.674	18.174	-	18.174	18.751	28.954	30.785	31.353	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Foreign Comparative Testing (FCT) Program supports the warfighter by leveraging mature technologies and equipment from allied nations and coalition partners to satisfy U.S. defense requirements, thereby accelerating the U.S. acquisition process and lowering development costs. Authorized by Title 10, U.S. Code, Section 2350a(g), the FCT Program is managed by the Office of Secretary of Defense (Rapid Fielding Office), Comparative Technology Office (CTO). FCT projects are nominated by the Services and U.S. Special Operations Command (USSOCOM) each year. Evaluation processes for project selection include a detailed review to confirm the proposed item addresses valid requirements, a thorough market survey, and development of a viable acquisition strategy. A seven-day Congressional notification of the intent to fund the projects is required, prior to the issuance of funds to the Services and USSOCOM for execution.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	32.755	19.080	19.204	-	19.204
Current President's Budget	26.642	18.674	18.174	-	18.174
Total Adjustments	-6.113	-0.406	-1.030	-	-1.030
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-0.500	-			
 SBIR/STTR Transfer 	-0.366	-0.279			
 Baseline Adjustments 	-	-	-1.030	-	-1.030
 Congressional Reductions 	-5.000	-	-	-	-
Economic Assumptions	-0.141	-	-	-	-
• FFRDC	-0.098	-0.127	-	-	-
 Other Program Adjustments 	-0.008	-	-	-	-

Change Summary Explanation

Baseline Adjustment. ASD(R&E) baseline adjustments reflective of DOD priorities and requirements.

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DATE: February 2012

Exhibit R-2A, RDT&E Project Ju	ustification: PE	3 2013 Office	e of Secreta	ry Of Defens	se				DATE: Feb	ruary 2012	
APPROPRIATION/BUDGET ACT 0400: Research, Development, To BA 6: RDT&E Management Supp	est & Evaluatio	n, Defense-V	Vide		NOMENCLA 0D8Z: Foreig		tive Testing	PROJECT P130: FCT			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
P130: <i>FCT</i>	26.642	18.674	18.174	-	18.174	18.751	28.954	30.785	31.353	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Foreign Comparative Testing (FCT) Program supports the warfighter by leveraging mature technologies and equipment from allied nations and coalition partners to satisfy U.S. defense requirements, thereby accelerating the United States (U.S.) acquisition process and lowering development costs. Authorized by Title 10, U.S. Code, Section 2350a(g), the FCT Program is managed by the Office of Secretary of Defense (Rapid Fielding Office), Comparative Technology Office. FCT projects are nominated by the Services and U.S. Special Operations Command (USSOCOM) each year. Evaluation processes for project selection include a detailed review to confirm the proposed item addresses valid requirements, a thorough market survey, and development of a viable acquisition strategy. A seven-day Congressional notification of the intent to fund the most meritorious projects is required, prior to the issuance of funds to the Services and USSOCOM for execution.

Since the program's inception in 1980, Office of Secretary of Defense (OSD) has initiated 646 projects; 551 projects have been completed to date. Of the 279 evaluations that met the sponsors' requirements, 231 led to procurements worth approximately \$10.950 billion in FY 2011 constant year dollars. With an Office of Secretary of Defense investment of about \$1.128 billion, the FCT Program realized an estimated RDT&E cost avoidance of \$7.800 billion in FY 2011 constant year dollars.

The FCT Program is a catalyst for teaming or other business relationships between foreign and U.S. industries. Many successful FCT projects result in the licensed production of the qualified foreign item in the U.S. Other nations recognize the long-term value of such practices for competing in the U.S. defense market and the resultant strengthening of the "two-way street" in Defense procurement. The result often means the creation of jobs and contributions to local economies throughout the United States. To date, companies across 33 states benefited from FCT projects.

Final selection of FY 2013 FCT new start projects were determined in September 2012.

Title: 40mm L60 High Explosive Incendiary (HEI) (United States Special Operations Command (USSOCOM))	0.700		
	000	=	-
Description: 40mm L60 High Explosive Incendiary (HEI) aims to qualify multiple sources of 40mm L60 HEI ammunition for use. The ammunition is a critical requirement as the current 40mm ammunition inventory is rapidly depleting at current rate of usage. The primary outputs and efficiencies to be demonstrated in the project are to identify one or more qualified sources for 40mm L60 HEI ammunition and avoid potential Research, Development, Test and Evaluation (RDT&E) and manufacturing costs worth approximately \$20.500 million. FY 2011 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secreta	ary Of Defense		DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605130D8Z: Foreign Comparative Testing	PROJECT P130: FC7			
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Accepted delivery of test articles (TAs) 1Q FY 2011. Inaccuracies in the government testing that resulted in safety issues with initial TAs, and go correct production specifications in 3Q FY 2011.					
FY 2012 Plans: Engineering Red Team (ERT) will finalize adjusted performance specific TAs in accordance with new contracted specifications, and government FY 2012. ERT will complete air qualification testing, and submit project	will conduct pre-qualification ground testing through				
Title: A-10 / F-16 Three Dimensional (3D) Audio Integration (Air Force)			2.200	1.781	-
Description: Tests and qualifies a three dimensional audio system for incorporate active and electronic noise reduction, spatial separation of dimensional threat audio cueing from on-board threat detection systems noise reduction capability. The primary output is a 3D audio input capability in real time to the pilot. It increases situational awareness and information overload. It will provide noise reduction, which all but elimin	multiple radio channels from multiple sources, and s. The A-10 and the F-16 do not have active or ele polity that automatically sorts and presents informated allows the pilot to respond quicker by reducing pilots.	three ectronic tion			
FY 2011 Accomplishments: Completed all requirements to initiate contract award in 2Q FY 2011 for	test articles and test planning.				
FY 2012 Plans: Initiate and complete technical and integration testing and initiate field user evaluation by the end of 3Q FY 2012. Finalize technical test report					
Title: Airborne Stand-Off Radar (ASTOR) Precision Targeting (PT) (Na	vy)		1.600	1.070	-
Description: Provide the Distributed Common Ground System – Navy Marine Corps (DCGS-MC) with a capability to receive near real-time Int via Common Data Link (CDL) antenna systems, from Royal Air Force (I primary outputs of the ASTOR System aboard the Sentinel Aircraft are Target Indicator (MTI) contacts. Software modifications to the ISR procedurrently used by DCGS-N will be implemented and tested to verify that processed, screened for potential mission application, and exploited to systems. This capability will allow United States (US) forces to leverage US ISR platforms.	Telligence, Surveillance, and Reconnaissance (ISR RAF) Airborne Stand-Off Radar (ASTOR) platform Synthetic Aperture Radar (SAR) images and Moviessing, exploitation, and dissemination (PED) com t ISR data from ASTOR Systems can be rapidly reproduce targeting data that can be used by US we	R) data, s. The ng ponents ceived, eapon			
FY 2011 Accomplishments:					

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Established contracts with United States and United Kingdom (UK) su Ministry of Defense (MoD) and Royal Air Force (RAF) leadership in 40 sensor model development, and real-time flight testing, scheduled for capabilities with support teams 4Q FY 2011. Coordinated initial plans with imagery samples to support sensor model development 4Q FY 20	Q FY 2011 to discuss plans for data collection, analy 2Q FY 2012. Reviewed ASTOR processing and explor flight testing and evaluation and began ISR data	/sis, oloitation			
FY 2012 Plans: Provide contracts for image processing software conversion and rada flight testing and evaluation to commence at the end of 2Q FY 2012 a conducted through 3Q FY 2012. Begin targeting validation analysis in	t RAF Waddington, UK. Flight testing and evaluation				
FY 2013 Plans: Complete flight testing and targeting reliability validation in 1Q FY 201 Deploy to DCGS-N and DCGS-MC Programs at the end of 3Q FY 202					
Title: Airborne Tactical Extraction Platform (AirTep) (United States Sp	ecial Operations Command (USSOCOM))		0.300	-	-
Description: Airborne Tactical Extraction Platform (AirTep) validates up to ten people rapidly, simultaneously, from locations where rotorcraindividuals. The primary outputs and efficiencies to be demonstrated i system that accommodates up to 3,306 pounds of personnel and equ Evaluation (RDT&E) costs worth almost \$3.000 million.	aft cannot safely land. Current capability is limited to n the project are a more efficient rotary wing extract	o three ion			
FY 2011 Accomplishments: Completed safety testing, technical testing, and test reporting. Obtained	ed fielding and deployment release in 1Q FY 2011.				
FY 2012 Plans: Complete operational flight testing. Obtain Milestone C decision and	closeout report in 2Q FY 2012.				
Title: Arresting System for F-22 and Joint Strike Fighter (JSF)(Air For	ce)		0.600	-	-
Description: Tests a complete dual-disc BC11 braking system, include spare consumables. The Headquarters Air Combat Command/A7OI, it computer-controlled caliper-disk aircraft arresting system from Scama Arresting Kit 12 (BAK 12) aircraft arresting system cannot handle arresting the utility be a computer controlled arresting system that will safely stopping speeds without over-stressing the tail hook and airframe. The self-diagnostics, would provide feedback to the airfield tower, and will	n Langley Air Force Base, Virginia will evaluate the of Vderstad, Sweden. The current 40 year old Bard sting a F-22 through its full range of operational load top an F-22 throughout the F-22's full operational rate system is cheaper to maintain and operate, has expended.	BC11 rier ds. The nge of			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Terminated dead-load testing of BC11 computer-controlled aircraft ar Track 5 prior to the completion of the test program due to mechanica fix.					
FY 2012 Plans: Continue testing at vendors' expense. Evaluation will be completed by	by end of 4Q FY 2012.				
Title: Cyber Defense for C4I Networks (CDCN) (Navy)			0.850	-	-
Description: Provides the United States (US) Navy with an integrate Networks. The Pacific Fleet has an Urgent Operational Needs Stater visualization, anomaly detection and response, and the ability to quer primary outputs are a real-time detection and post event analysis for efficient management of the Global Information Grid (GIG), and ability related to the operational health, performance, security, and mission	ment (UONS), requires a technical solution for networy stored network traffic for information of interest. The managing the security of complex networks, effective y to quickly find, access, retrieve, and analyze inform	rk he e and			
FY 2011 Accomplishments: Conducted operational user testing and assessment during 2Q FY 20 Submitted final decision packet in 4Q FY 2011.	011. Provided technical test report during 3Q FY 201	11.			
FY 2012 Plans:					
Complete project close-out report by end of 1Q FY 2012.			0.050		
Title: Deployable Runway Rubber Removal System (Air Force) Description: Deployable Runway Rubber Removal System evaluate pavement surfaces to restore runway friction, and provides a safe opis equipped with a vacuum to remove runway debris and mitigate fore 60 percent less water than the current system and completes rubber Ultra-High Pressure (UHP) System can evacuate the runway in the e cannot. The primary output is a deployable, UHP water runway rubber	erating runway surfaces for military aircraft. Remova- eign object debris damage to airplanes. The system removal in half of the time, with half of the manpowe vent of an emergency landing, while the current syst	al system uses r. The	0.850	-	-
FY 2011 Accomplishments: Coordinated with Federal Highway Administration (FHWA) to borrow Meter (CT Meter), accepting delivery on 22 August 2011. These dev (MPD) and dynamic coefficients of friction, respectively. Received on	ices were used to measure pavement Mean Profile [Depth			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Crash Safety and Research Center at the Pennsylvania Transportatio Performed rubber removal on Runway 22 L at Edwards AFB from 14 to					
FY 2012 Plans: Obtain Track-jet Air Transportability Test Loading Activity (ATTLA) airl and post-cleaning friction data and draft of the final report.	lift certification for C-130 transport. Started analysis	of pre-			
Title: Digital – Battle Management Application (D-BMA) (Navy)			1.100	-	_
Description: Digital – Battle Management Application (D-BMA) is an idigital mapping and unit position locations output through the Global Combat functionality for transmission of digital orders, conducts mission and effectiveness. D-BMA provides the United States Marine Corps (supports mission planning, rehearsal, and combat operations while predigital command and control. The primary outputs are reduced sensorand faster processing with more accuracy. FY 2011 Accomplishments:	Command and Control System. The D-BMA provide on planning, and enhances combat situational aware USMC) real-time terrain association of tactical data, oviding enhanced combat capability through an opti	eness and mized,			
Received test articles in 1Q FY 2011. Initiated lab/integration testing a accreditation through 2Q FY 2011. Completed lab/integration and init Project terminated due to software validation issues.					
Title: Enhanced Fuse for 70mm Warhead (United States Special Ope	rations Command (USSOCOM))		1.092	0.165	_
Description: Validates a fuse that allows the pilot to change settings special Operations Aviation Forces are missing targets of opportunity. The primary outputs and efficiencies to be demonstrated from the projurect Attack Munitions and Hellfire Rocket and avoids Research, Devoperations, and support costs worth \$68.000 million.	due to their inability to reset rocket fuses once airbo ject are mission flexibility that reduces dependence	orne. on Joint			
FY 2011 Accomplishments: Delivered Government Furnished Equipment umbilical(s) in 2Q FY 20 testing in 3Q FY 2011. Began environmental, technical, safety and furnished Equipment umbilical(s) in 2Q FY 20		ormance			
FY 2012 Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Complete environmental, technical, safety, and fuse testing through 20 2011, complete Weapon Systems Explosive Safety Review Board (WS user testing through 4Q FY 2012.					
FY 2013 Plans: Obtain Milestone C Decision and Fielding and Deployment Release. So	ubmission of closeout report will occur in 1Q FY 20	013.			
Title: Landing Craft Air Cushion (LCAC) Operator Suspension Seats (N	Navy)		1.000	0.221	-
Description: The LCAC Operator Suspension Seats project will test ar seat for LCAC operators that will lower the risk of lumbar spine injury a will improve war-fighter mission readiness and operator availability on thuman factors at Naval Surface Warfare Ceneter (NSWC)-Panama Cit Units (ACU) 4 and 5. The selected operator suspension seat will be us and beyond with integration into the Ship to Shore Connector (SSC/LC by this project are: 1) reduced number of injuries to LCAC crew due to during missions; and 3) avoidaince of Research, Development, Test, at \$10.500 million.	nd long-term disability. The suspension seat technical evaluation will occur at Assault and throughout the life cycle of the LCAC program is AC 100). The primary outputs and efficiencies prowhole-body vibration exposure, 2) reduced operators.	nology nation of Craft into 2030 duced or fatigue			
FY 2011 Accomplishments: Procured test articles for the technical evaluation phase, 4Q FY 2011. war-fighter evaluation test plans in 4Q FY 2011. Completed mechanic craft in 4Q FY 2011.					
FY 2012 Plans: Receive test articles for technical evaluation phase in 1Q FY 2012. Co City test craft 1Q FY 2012. Complete development of a standard instal test articles for war-fighter evaluation phase in 1Q FY 2012. Receive to 2012. Install operator seats on ACU-4 and ACU-5 craft during during 2 Complete war-fighter evaluation in 3Q FY 2012. Complete final evaluation	llation procedure for Fleet craft in 1Q FY 2012. Pro est articles for war-fighter evaluation phase during 2Q FY 2012. Complete technical evaluation in 2Q	ocure 2Q FY FY 2012.			
Title: Light Anti-Tank Weapon Rocket Motor Insensitive Munitions (LAV	W RM IM) Improvement (Navy)		0.500	-	-
Description: Test a fully Insensitive Munitions (IM) compliant Light Ant safety and reduce the severe logistical burden associated with storage primary outputs are improved safety for system operator/handler, minimand reduced burden of transporting non-IM compliant munitions.	and transportation of non-IM compliant munitions.	The			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Awarded propulsion system contract in 1Q FY 2011. Received propulsing beginning in the 3Q FY 2011 and completed in 3Q FY 2011.					
FY 2012 Plans: Finalize propulsion system qualification testing 1Q FY 2012. Initiate review in 2Q FY 2012. Complete the Weapon System Explosives Sa decision, final technical report during 3Q FY 2012.					
Title: Marine Grade Aluminum Plate (Navy)			0.750	0.230	-
Description: Marine Grade Aluminum Plate evaluates an engineered as a repair and replacement material for a ship's superstructure. A ur material that is rolled into sheet having a marine grade aluminum cor is an aluminum alloy's susceptibility to sensitization, a micro-structural provides an environment for stress corrosion cracking. The primary of material that is corrosion resistant in a marine environment. This will readiness compared to current decking and bulkhead plate. Estimatical and cracking of aluminum plate is between \$1.000 million and \$2.000 fleet over the first repair cycle would translate to costs in excess of \$2 material that is capable of meeting the service lifetime requirements of	nique manufacturing technique produces a multi-layer with a corrosion resistant outer layer. A particular all phenomenon that increases corrosion susceptibility output of this project is superior aluminum with multi-provide increased survivability, sustainability, and op ons for CG repair and replacement costs due to sense of million per repair cycle. Extrapolating this cost acro 22.000 million that would be saved using an aluminum	ered concern y, and layered perational sitization ss the			
FY 2011 Accomplishments: Finalized specimen machining and testing plan in 3Q FY 2011. Proc 2011. Received second lot of test material in 4Q FY 2011.	ured second and third lots of test material during 3Q	FY			
FY 2012 Plans: Commence long-term exposure corrosion testing, fabricate test samp 1Q FY 2012. Conduct evaluation of weld-ability of product in 1Q and skid removal throughout 1Q and 2Q FY 2012. Perform aging and alu 2012. Conduct fatigue and fracture toughness testing 2Q FY 2012. mechanical property, fracture, and fatigue testing in 2Q and 3Q FY 20012. Prepare technical test report and cl 2012.	2Q FY 2012. Evaluate effects of paint removal and iminum sensitization testing through 1Q FY 2012 to 3 Perform adhesion and wear tests in 2Q FY 2012. Co 012. Continue data acquisition from long-term exposed.	non- 3Q FY omplete sure			
Title: Micro-Smooth Coating System (Navy)			0.750	0.152	-

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Description: Micro-Smooth Coating System evaluates a commercial topcoats to reduce parasite or skin friction drag. This coating offers the characteristics, and extend paint coating life. An A-glaze reactive polycommercial products being tested.	ne potential to decrease fuel consumption, improve fli	ight			
FY 2011 Accomplishments: Delivered a test article in 4Q FY 2011. Contracted and fabricated a v	vind tunnel model in 4Q FY 2011.				
FY 2012 Plans: Initiate materials performance lab testing in 2Q FY 2012. Perform wiperformance tests throughout 2Q and 3Q FY 2012. Perform environn technical test report, procurement decision and project close-out reports.	nental and other surface tests during 3Q FY 2012. F				
Title: Multi Diver Heating & Cooling System (MDHCS) for Wet Submo	ersibles (USSOCOM)		1.200	0.425	-
Description: Multi Diver Heating & Cooling System (MDHCS) for We system that maintains a combat diver's core body temperature, regar vapor compression cycle heat pump that exchanges fluid through hig Operations Forces (SOF). The primary outputs and efficiencies to be system that will be integrated in future shallow water combat submers Evaluation (RDT&E) and manufacturing costs worth approximately \$2.000.	dless of water temperature. MDHCS is based on a right density liquid circulating garments worn by Special dedemonstrated in the project are mission enhancing sibles and avoidance of Research, Development, Test	miniature survival			
FY 2011 Accomplishments: Negotiated contract and performed test planning in 4Q FY 2011.					
FY 2012 Plans: Award test article contract during 1Q FY 2012. Test articles will be de	elivered and developmental testing will begin in 2Q F	Y 2012.			
FY 2013 Plans: Complete developmental testing in 2Q FY 2013. Conduct operational report during 4Q FY 2013.	al testing from 2Q FY 2013 to 4Q FY 2013. Submit of	loseout			
Title: Multi-fuel Submersible Outboard Engines (United States Specia	al Operations Command (USSOCOM))		0.500	-	-
Description: Multi-fuel Submersible Outboard Engines validates test delivery system integrated into commercial off-the-shelf, lightweight, submining outboard engine capable of using multiple fuels. The primary	submersible outboard engine to produce non-gasolin	е			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Directive 4140.25 Management Policy for Energy Commodities and F systems to common, less combustible fuels by 2010. Fielding reduct		combat			
FY 2011 Accomplishments: Completed phase three, which consisted of final configuration modific	cation and technical testing.				
FY 2012 Plans: Phase Four will be conducted and consists of final developmental and Closeout Report will be submitted in 2Q FY2012.	d operational testing, followed by production decision	1.			
Title: Sheeted Nitrocellulose for Combustible Case Cartridges (Army			0.800	0.450	-
Description: Sheeted Nitrocellulose for Combustible Case Cartridge of sheeted nitrocellulose (NC). Sheeted NC is currently made for comfrom Israel. There is no domestic source of baled cotton linters. Enough NC production through FY 2011. This project will eliminate the risk of case cartridges for the army by qualifying a process to decompose should be a supplied to the case of the cas	nbustible cartridge cases using baled cotton linters in ugh baled cotton linters were purchased to support s supply disruption of sheeted nitrocellulose for comb	nported heeted			
FY 2011 Accomplishments: Contracts were awarded and lab testing is in progress.					
FY 2012 Plans: Award Phase Two of contract to Valleyfield for characterization analy combustible cases for 120 millimeter (mm) and 81 mm mortar charge sent to Yuma Proving Ground (YPG) for ballistic test evaluation.					
Title: Novel Processing System for Ration Meat Items (Army)			0.950	-	-
Description: Test the Osmofood® system, a simple one-step process stable meat items with desirable texture. The system does not use equality and nutrients are well preserved. Furthermore, the system catumeric and green tea extract) and quality enhancers (such as canolated can be consumed as a savory snack or used as a filling for a shelf starations items that up to now not possible.	xtremely high temperature like a retort process; hence n be used to incorporate supplemental nutrients (suc a protein for meat succulence) to produce a meat roll	ce, the ch as -up that			
FY 2011 Accomplishments:					
		·		·	

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Completed the testing and evaluation of Phase Two. All samples pass in accordance to Army's food service specifications and requirements	sed requirements. Phase Three contract has been a	awarded			
FY 2012 Plans: Testing should conclude in 3Q FY 2012, with an acquisition strategy semilitary.	et up to install a pilot scale unit for production for the	е			
Title: Precision Sniper Rifle (PSR) (Foreign and Domestic) (United Sta	tes Special Operations Command (USSOCOM))		0.850	-	-
Description: Precision Sniper Rifle competitively evaluates and tests so Rifle systems include weapon, noise and flash suppression, ammunition to be demonstrated in the project are increased lethality at long rangest avoidance of Research, Development, Test, and Evaluation (RDT&E) of	on and support articles. The primary outputs and eff s consistent with the current operational environmen	iciencies			
FY 2011 Accomplishments: Completed scope user assessment in 1Q FY 2011. Conducted joint so contract 3Q FY 2011. Prepared PSR solicitation documents.	ource selection in 2Q FY 2011, and awarded produ	ction			
FY 2012 Plans: Reissue PSR weapon system solicitation in 1Q FY 2012. Perform "go/PSR weapon systems and complete source selection in 3Q FY 2012. 2012.					
Title: Pyrolysis Solid Waste Disposal With Energy Recovery (Army)			0.750	-	-
Description: Pyrolysis Solid Waste Disposal With Energy Recovery te Pyrolysis Technology to dispose of approximately two tons of solid was technology will help reduce or eliminate the need for outside contractor reducing potential threats to the force. Primary outputs: (1) produce a additional fuel and (2) reduce the amount of fuel needed to support the	ste per day within a Force Provider Base Camp. The sto access the base camp to dispose of solid was system that will be self-powered reducing the need	nis te,			
FY 2011 Accomplishments: Test terminated, project closed out. System encountered problems du manufacturer.	ring operational testing that could not be resolved b	ру			
Title: Rapid Deployment and Extended Autonomy for Single and Multip	ole Unmanned Underwater Vehicle (UUVs) (Navy)		0.800	0.975	-
Description: The United States (U.S.) Navy will evaluate a module for Common Operator Interface Navy (COIN) tool to permit adaptive missi					

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0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support	PE 0605130D8Z: Foreign Comparative Testing	P130: <i>FC1</i>	-		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
In addition to demonstrating new behaviors and algorithms, including a to provide an open and modular interface for third-party autonomy algo produce competition for future capabilities. The effort aims to increase an interface for application of existing Navy adaptive behaviors to improduce case in mine countermeasures (MCM) total mission time and a 33° without degradation of system key performance parameters. Based on the effort is also estimated to avoid Research, Development, Test, and worth over \$2.000 million.	writhms that will support Navy's ongoing application. UUV mission capabilities through autonomy and pove fielding efforts. Efforts will produce an estimate decrease in human-caused pre-programming erar reported present capabilities and open integration.	s and rovide d 33% rors model,			
FY 2011 Accomplishments: Defined testing methods for autonomy and aligned present system cap 2011. Completed preliminary adaptation of existing software to Navy sy		in 3Q FY			
FY 2012 Plans: Complete adaptation of existing software to Navy systems. Execute pre on multiple platforms during 3Q FY 2012. Complete government simular performance as well as open interface in 3Q and 4Q FY 2012. Perform of module to government systems in 4Q FY 2012.	ation testing of prototype modules to verify and vali	date			
FY 2013 Plans: Continue to perform final adaptation of module to Government systems demonstration of autonomy module on Government systems at Govern procurement decision and project close-out report by the end of 3Q FY	nment facility in 2Q FY 2013. Finalize technical test				
Title: Reconnaissance Airborne Pod TORnado (RAPTOR) Precision Ta	argeting (PT) (Navy)		1.500	1.020	-
Description: Provide the Distributed Common Ground System – Navy - Marine Corps (DCGS-MC) with a capability to receive in near real-time Intelligence, Surveillance, and Reconnaissance (ISR) data from the Re Systems. Systems are carried by Royal Air Force (RAF) GR-4 platform Electro-Optical (EO) and Infrared (IR) images in a digital format. Softwan Dissemination (PED) Systems currently used by DCGS-N will be implesty to Systems can be rapidly received, screened for potential mission application used by US weapon systems. This capability will allow United States (Umission requirements for US ISR platforms.	e, via Common Data Link (CDL) antenna systems, connaissance Airborne Pod for Tornado (RAPTOR s. The primary outputs of the RAPTOR System are modifications to the ISR Processing, Exploitation mented and tested to verify that ISR data from RAI ation, and exploited to produce targeting data that	R) e on, and PTOR can be			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secr	etary Of Defense	D	ATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605130D8Z: Foreign Comparative Testing	PROJECT P130: FCT			
B. Accomplishments/Planned Programs (\$ in Millions)		FY	/ 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Completed project planning and awarded contracts to US and United Met with Ministry of Defense (MoD) and RAF leadership in 4Q FY 20 data collection, analysis, sensor model development, and real-time flianalysis with samples to support sensor model development for 4Q F	11 to discuss Foreign Comparative Testing (FCT) plaight testing, scheduled for 2Q FY 2012. Initiated ISR	ans for			
FY 2012 Plans: Establish contract with Goodrich Aerospace of the UK for RAPTOR of Transmission Format (NITF) testing in1Q FY 2012. Coordinate plans FY 2012. Conduct flight tests by the end of 2Q FY 2012 at RAF Mark validation throughout the 3Q and 4Q FY 2012.	for target surveys, flight testing and data evaluation				
FY 2013 Plans: Continue and complete flight testing and target reliability validation. For Deploy to DCGS-N and DCGS-MC Programs by the end of 3Q FY20 by the end of 3Q FY 2013.					
Title: Rifle Accessory Control Unit (RACU) (Navy)			-	-	
Description: Tests the RACU, a one-handed, on the move, intuitive, rifle accessories and communications equipment through a central coand water proof digital controller that attaches to the front of any rifle Agreement (STANAG) 4694 NATO Accessory Rail. A computer programbology, triggering muscle memory and promoting eyes-free operasensors optics, flashlights, and radios while simultaneously allowing turning power on and off to individual devices when not in use.	ontrol point. Its five-button, silent, shock/vibration resolvia a Military Standard (MIL-STD) 1913 or Standardigram also helps guide a first time operator with simplation. RACU is capable of intelligently controlling all	sistant, zation e the			
FY 2011 Accomplishments: Project cancelled due to technical challenges.					
Title: Robotic – Moving Target System (R-MTS) (Navy)			0.750	-	-
Description: Test a free roaming, pre-programmable mobile target s responses in an urban combat environment. The primary outputs are proficiency, and analytical abilities that will result in the combat efficameneuver.	e improved marksmanship skills, tactical decision ma	king			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secre	etary Of Defense		DATE: Fel	oruary 2012	
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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Completed technical and safety testing efforts in 1Q FY 2011. Conduction Completed technical and safety testing in 3Q FY 2011. Completed technical and safety testing in 3Q FY 2011. Completed technical additional funding in support of four wheeled variant testing 4Q FY 2011.	echnical report for two wheeled variant in 3Q FY 201	1.			
FY 2012 Plans: Initiate fabrication of four wheeled variant test articles in 1Q FY 2012. safety testing and field user evaluations by the end of 4Q 2012.	Receive test articles early in 4Q FY 2012. Initiate t	echnical/			
FY 2013 Plans: Finalize technical test report, seek procurement decision, and produc	e project close-out report during 1Q - 2Q FY 2013.				
<i>Title:</i> Special Operations Forces (SOF) Close Target Reconnaissanc (USSOCOM))	e Systems (United States Special Operations Comm	nand	1.500	-	
Description: SOF Close Target Reconnaissance Systems tests cover systems to capture and transfer near real time actionable intelligence treat activities. The primary outputs and efficiencies to be demonstrathigh value targets using covertly staged devices with low detection. Migital imagery, video and audio feeds, as well as the capacity to prove to facilitate targeting, interrogation, and information sharing. Avoids an and Evaluation (RDT&E) manufacturing, production and operations a	information with instant data ex-filtration on foreigned in the project are the capability to monitor and enfonitor systems that capture and transfer near-real-tivide biometric, forensic and document media exploitate pproximately \$82.150 million Research, Development	nostile gage me ation data			
FY 2011 Accomplishments: Obtained receipt of various test articles and tested sensitive site systematics.	ems through 4Q FY 2011.				
FY 2012 Plans: Complete operational suitability, effectiveness, safety and interoperate Obtain Milestone C decision and fielding and deployment release in 4		012.			
FY 2013 Plans: Submit closeout report by 1Q FY 2013.					
Title: Stand-Off Gas Cloud Detector for Chemical Warfare Agents (Un	nited States Special Operations Command (USSOC	OM))	1.350	0.519	
Description: Stand-Off Gas Cloud Detector for Chemical Warfare Ag a thermal camera to conduct a spectral analysis in order to detect, ide					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secre	etary Of Defense		DATE: Fel	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605130D8Z: Foreign Comparative Testing	PROJECT P130: FC7			
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
chemical/industrial toxic agents of Special Operations Forces (SOF) properties (IR) micro-bolometer technology. The primary outputs and e SOF a detection capability that it does not currently posses and to avoid manufacturing, and production costs worth \$10.664 million.	fficiencies to be demonstrated in the project are to p	rovide			
FY 2011 Accomplishments: Completed test planning and negotiated task order with contracted unit	iversity test agency through 4Q FY 2011.				
FY 2012 Plans: Complete test article contract during 1Q FY 2012. Receive test article technical testing in 4Q FY 2012.	es and obtain safety release in 3Q FY 2012, and be	gin initial			
FY 2013 Plans: Complete technical testing during 1Q FY 2013. Conduct combined de Obtain Milestone C decision and submit closeout report in 4Q FY 2013.		2013.			
Title: Sub Caliber Training System for Multi-role Anti-armor Antipersor Operations Command (USSOCOM))	nnel Weapon System (MAAWS) (United States Spe	cial	0.800	-	
Description: Evaluate sub-caliber training systems for the 84mm Carl system includes an 84mm ammunition adapter that fires sub-caliber at demonstrated in the project are realistic, cost effective savings for exp avoid Research, Development, Test, and Evaluation (RDT&E) procure \$194.600 million.	mmunition. The primary outputs and efficiencies to ensive 84mm weapons mission application training	and to			
FY 2011 Accomplishments: Completed source selection evaluation through 2Q FY 2011. Compile 2011, and negotiated test article contract by 4Q FY 2011.	ed Joint Safety Evaluation Board data package in 30	Q FY			
FY 2012 Plans: Receive test articles during 1Q FY 2012. Conduct combined developr Joint Safety Evaluation Board certification during 3Q FY 2012. Obtain 2012.					
Title: Submarine Survivor Locating Device (Navy)			0.600	-	
Description: Tests an automatic location device utilizing Very High Fr Positioning Satellite (GPS) System. It will enable Navy rescue operations					

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APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605130D8Z: Foreign Comparative Testing	PROJECT P130: <i>FC1</i>			
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
the open ocean. The primary output is successful location of distress technology which only identifies the coordinates of the distressed sub		rent			
FY 2011 Accomplishments: Completed baseline at-sea signal acquisition testing in 2Q FY 2011. results during 4Q FY 2011. Drafted close-out report and final technic		ated test			
FY 2012 Plans: Complete and submit project close-out report and final technical repo	ort in 1Q FY 2012.				
Title: Ultra High Energy Rechargeable Battery (Army)			0.750	-	
Description: Ultra High Energy Rechargeable Battery tests a new recells and replaces a battery used in many United States (US) Army p most widely used battery in the Army inventory. Compared to the curone hour (30 percent) greater service time, 1.6 Ampere hour (Ah) (24 greater energy. At -32 degrees Celsius (°C) and five amperes, the new hours energy; whereas, the current production battery will not operate per battery. Less weight, creates greater run time, and equals fewer	ortable radios and electronics equipment. The batter rrent production battery, the new BB-2590/U battery percent) greater capacity, and 38 Watt-hours (20 pew battery will provide 1.3 hours service time and 16 e at -32 °C. The battery weight will be reduced by 7	ryis the will have ercent) 5 Watt-			
FY 2011 Accomplishments: Completed temperature and drop testing. Completed Base Realignr Aberdeen Proving Ground. Completed utility power wiring to enable the mechanical shock and life cycle testing.					
FY 2012 Plans: Complete testing and evaluation, and procurement decision expected	d to be made by 4Q FY 2012.				
Title: United States Marine Corps (USMC) M1A1 Laser Warning Sys	tem (LWS) (Navy)		0.750	-	
Description: USMC M1A1 Laser Warning System tests a real time la are detect and characterize laser threats under all weather and battle the tank crew the angle of arrival within +/- 1 degree, and increases s	field conditions, provide 360 degree azimuth covera				
FY 2011 Accomplishments:					
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Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secr	retary Of Defense		DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0605130D8Z: Foreign Comparative Testing	PROJECT P130: FC7			
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Completed test planning in 2Q FY 2011. Continued fabrication of test test articles 3Q FY 2011. Initiated technical and integration testing be		ceived			
FY 2012 Plans: Complete technical and integration testing and initiate field user evaluation, final technical report, and procurement decision during 20 3Q FY 2012.					
Title: Ballistic Pelvic Protection (BPP) (Navy)			0.500	-	-
Description: The Ballistic Pelvic Protection (BPP) will decrease injur Devices by protecting the groin area, femoral arteries, and substantial debris emanating from a ground blast. Injuries to these vital areas from impairments, or possibly fatal bleeding. BPP will provide additional provide encounter reduced injuries to vital pelvic areas and reproductive debris emanating from a ground blast. BPP also reduces the amount	al parts of the upper leg from secondary fragments, sequently result in loss of reproductive organs, life charotection to the lower body and pelvic area. The Wardorgans caused by secondary fragments and/or sand	and, and anging fighters and			
FY 2011 Accomplishments: Approved as a FY 2011 Out-of-Cycle project and funded during 4Q F	Y 2011. Initiated contract preparation.				
FY 2012 Plans: Complete contract award in 1Q FY 2012. Initiate and complete test p 2012. Initiate performance and ballistic testing in 3Q FY 2012. Conduction of the following searly in 4Q FY 2012. Finalize technical test report, procureme 2012.	uct user evaluations during 3Q FY 2012. Complete	all test			
Title: Foreign Comparative Testing (FCT) FY 2012 and FY 2013 Plan	ns		-	11.666	18.174
Description: Investment decisions are made during the execution yet Command (USSOCOM) and Other Government Organizations' (OGC are presented. In FY 2012, the FCT will invest in service/USSOCOM, areas: Forward Operating Base Protection; Hostile Fire/Air Crew Protesystems); Cyber Defense; Autonomous and Portable Air, Ground and Improved Power Sources; Improved Logistics and Equipment Reset;	O) requirements as new threats emerge or new oppo /OGO projects that will focus in the following operation tection (small arms fire and man-portable air-defensed Underwater Systems; Enhanced Soldier Protection	rtunities onal e ;			
FY 2012 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secreta	ry Of Defense		DATE: February 2012
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
Initiate new start projects and support ongoing projects.			
FY 2013 Plans:			
Initiate new start projects and support ongoing projects.			
Accomplishments/Planned Programs Subtotals	26.642	18.674	18.174

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Office of the Under Secretary of Defense, Acquisition, Technology & Logistics (OUSD (AT&L)) Strategic Objective 4-2D: Speed technology transition focused on warfighting needs with the objective to transition 30 percent of completing demonstrations program per year. Since the program's inception in 1980, Office of Secretary of Defense (OSD) has initiated 646 projects; 579 projects have been completed to date. Of the 279 evaluations that met the sponsors' requirements, 231 led to procurements worth approximately \$10.850 billion in FY 2011 constant year dollars. With an OSD investment of about \$1.130 billion, the FCT program has realized an estimated RDT&E cost avoidance of \$7.800 billion in FY 2011 constant year dollars. In FY 2011 FCT had a transition rate of 93 percent for completed projects, exceeding the objective of 30 percent for demonstration programs.